

## WHAT IS CLAIMED IS:

Sub A1  
 1. A high-frequency current suppression body having a sheet shape and comprising an adhesive layer or pressure-sensitive adhesive layer on at least one surface of a magnetic thin film.

2. The high-frequency current suppression body according to claim 1, wherein said magnetic thin film is provided on one surface of a film or sheet-form substrate composed of a synthetic resin.

3. The high-frequency current suppression body according to claim 2, wherein said adhesive layer or pressure-sensitive adhesive layer is provided on one surface of said magnetic thin film with said substrate interposed therebetween.

4. The high-frequency current suppression body according to claim 1, wherein said magnetic thin film is provided on one surface of a film or sheet-form substrate so that said magnetic thin film can be peeled away from said substrate.

Sub A2  
 5. The high-frequency current suppression body according to claim 1, wherein said magnetic thin film substantially consists of a magnetic loss material having an M-X-Y composition, where M is at least one of Fe, Co, and Ni, Y is at least one of F, N, and O, and X is at least one element other than M or Y, and said magnetic loss material is a narrow-band magnetic loss material such that the maximum value  $\mu''_{\max}$  of loss factor  $\mu''$  exists within a frequency range of 100 MHz to 10 GHz, said loss factor  $\mu''$  being an imaginary part in complex permeability of said magnetic loss material, and that a relative bandwidth bwr is not greater than 200% where the relative bandwidth bwr is obtained by extracting a frequency bandwidth between two frequencies at which the value of  $\mu''$  is 50% of the maximum  $\mu''_{\max}$  and normalizing the frequency bandwidth at the center frequency thereof.

7. The high-frequency current suppression body according to claim 5, wherein size of saturation magnetization of said magnetic loss material is in a range of 80% to 60% of saturation magnetization of metal magnetic body consisting solely of M component.

9. The high-frequency current suppression body according to claim 5, wherein said X component in said magnetic loss material consists of at least one of C, B, Si, Al, Mg, Ti, Zn, Hf, Sr, Nb, Ta, and rare earth elements.

11. The high-frequency current suppression body according to claim 5, wherein mean particle diameter of particle M component having said granular form is in a range of 1 nm to 40 nm.

12. The high-frequency current suppression body according to claim 5, wherein said magnetic loss material exhibits an anisotropic magnetic field  $H_k$  of 600 Oe ( $4.74 \times 10^4$  A/m) or less.

13. The high-frequency current suppression body according to claim 5, wherein said magnetic loss material has a composition represented by general formula  $\text{Fe}_\alpha\text{-Al}_\beta\text{-O}_\gamma$ .

14. The high-frequency current suppression body according to claim 5, wherein said magnetic loss material has a composition represented by general formula  $\text{Fe}_\alpha\text{-Si}_\beta\text{-O}_\gamma$ .

sub process  
A3

16. The high-frequency current suppression body according to claim 1, wherein said magnetic thin film substantially consists of a magnetic loss material having an M-X-Y composition, where M is at least one of Fe, Co, and Ni, Y is at least one of F, N, and O, and X is at least one element other than M or Y, and said magnetic loss material is a broadband magnetic loss material such that the maximum value  $\mu''_{\max}$  of loss factor  $\mu''$  exists within a frequency range of 100 MHz to 10 GHz, said loss factor  $\mu''$  being imaginary part in complex permeability of said magnetic loss material, and that a relative bandwidth bwr is not smaller than 150% where the relative bandwidth bwr is obtained by extracting a frequency bandwidth between two frequencies at which the value of  $\mu''$  is 50% of the maximum  $\mu''_{\max}$  and normalizing the frequency bandwidth at the center frequency thereof

17. The high-frequency current suppression body according to claim 16, wherein said magnetic loss material has a size of saturation magnetization within a range of 60% to 35% of saturation magnetization of metal magnetic body consisting solely of M component.

18. The high-frequency current suppression body according to claim 16, wherein said magnetic loss material exhibits a DC electric resistivity value larger than  $500 \mu\Omega\cdot\text{cm}$ .

19. A high-frequency current suppression method wherein the high-frequency current suppression body cited in claim 18 is deployed either in tight contact with or in close proximity to an electronic circuit.

20. A high-frequency current suppression body formation method wherein a magnetic thin film formed on one surface of a peelable sheet-form substrate is placed on an object, and, by applying a pressure from said

substrate side thereof, the portion of said magnetic thin film where the pressure is applied is transferred to said object.

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